

Application No.: 10/762,070

Docket No.: JCLA12713-R

## **REMARKS**

### **Present Status of the Application**

Claims 1-7, 10 & 12-17 were rejected under 35 USC 112, second paragraph. Claims 1-6 were rejected under 35 USC 103(a) as being unpatentable over admitted prior art (Figs. 1-4, PA) in view of Nyseth et al. (US 6,010,008, Nyseth) and Baseman et al. (US 5,346,518, Baseman). Claims 7, 10 & 12-17 were rejected under 35 USC 103(a) as being unpatentable over PA in view of Dickinson et al. (US 2003/0232512, Dickinson), Nyseth and Baseman.

In response, Applicant has amended claims 1, 2 & 7 and canceled claims 16-17. In addition, claims 3, 6, 10, 12-13 have also been amended. Reconsideration of claims 1-7, 10 & 12-15 is respectfully requested.

### **Discussion of Rejections under 35 U.S.C. 112**

Claims 1-7, 10 & 12-17 were rejected under 35 USC 112, second paragraph, for “the ammonium sulfate crystals” in independent claims lack antecedent basis. Accordingly, the word “the” before the words “ammonium sulfate crystals” is deleted for each of the claims mentioning ammonium sulfate crystals.

### **Discussion of Rejections under 35 U.S.C. 103(a)**

Claims 1-6 were rejected under 35 USC 103(a) as being unpatentable over PA in view of Nyseth and Baseman, and claims 7, 10 & 12-17 rejected under 35 USC 103(a) as being unpatentable over PA in view of Dickinson, Nyseth and Baseman.

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Applicant respectfully traverses the rejections, at least for one feature of independent claims 1 and 7, i.e., the means for preventing the surface of the reticle from being covered by ammonium sulfate crystals, is non-obvious over the prior art.

More specifically, the invention of Nyseth, Baseman or Dickinson is directed to wafer transportation or processing apparatus, while ammonium sulfate crystals are no problem to wafers *because there is tiny chance that ammonium sulfate crystals cause a wafer to fail*. Therefore, one of ordinary skill is not motivated to remove ammonium sulfate crystals from the wafer surface. On the contrary, ammonium sulfate crystals on a reticle cause a much bigger problem even when the particle size of the ammonium sulfate crystals is at a ppb or ppm level, for *many lots of wafers exposed with this reticle will fail due to the ammonium sulfate crystals*.

Moreover, in Point 7 (Page 6) of the Office Action, Examiner stated that *the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the difference would otherwise be obvious*. However, in this invention, the prevention of  $(\text{NH}_4)_2\text{SO}_4$  crystals is not an advantage which would flow naturally from following the suggestion of Nyseth or Baseman, because whether ammonium sulfate crystals are prevented or not does not affect the yield of the dies on the wafers as indicated above and is therefore meaningless in view of Nyseth or Baseman. Accordingly, the means for preventing the surface of the reticle from being covered by ammonium sulfate crystals can be a basis for patentability.

Furthermore, Examiner asserted in Point 8 (Page 7) of the Office Action that wafers need to be protected from contamination and one of ordinary skill in the art would find a means for

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protecting wafers as highly relevant to the protection of reticles. However, Applicant respectfully submits that since a semiconductor process includes many issues and wafers need not to be protected from  $(\text{NH}_4)_2\text{SO}_4$  as explained above, it is non-obvious for one of ordinary skill in the art to find a means for protecting wafers *among so many related issues* as highly relevant to *the prevention of  $(\text{NH}_4)_2\text{SO}_4$  for reticles*.

Accordingly, to find a means capable of preventing the surface of the reticle from being covered by ammonium sulfate crystals, one of ordinary skill is not motivated to refer to the invention of Nyseth or Baseman, in which the objects and the problems to be solved are not related to prevention of ammonium sulfate crystals at all and are therefore different from the objects and the problems to be solved in this invention.

In addition, one more feature of claims 2 and 7 is the ammonium sulfate removing agent, which can be an agent capable of adsorbing water,  $\text{NH}_3$  or both of them according to the well-known mechanism of  $(\text{NH}_4)_2\text{SO}_4$  formation. Nyseth or Baseman's invention fails to teach or suggest using an ammonium sulfate removing agent, for preventing the surface of a wafer from being covered by ammonium sulfate crystals is meaningless in view of Nyseth or Baseman.

For at least the above reasons, Applicant respectfully submits that independent claims 1 and 7 patently defines over the prior art.

For at least the same reasons mentioned above, Applicant respectfully submits that claims 2-6, 10 & 12-15 dependent from claims 1 and 7 also patently define over the prior art.

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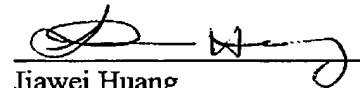
**CONCLUSION**

For at least the foregoing reasons, it is believed that pending claims 1-7, 10 and 12-15 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Date: 3/23/2006

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Respectfully submitted,  
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